Mussels

Mussels is the common name for several species of bivalve molluscs (Canning of Fish and Seafood, 2015). Steinert et al. denotes that the North Sea contains three species of mussel (within the genus of *Mytilus*), them being: Blue mussel (*Mytilus edulis*), Mediterranean mussel (*Mytilus galloprovincialis*), and Pacific blue mussels (*Mytilus trossulus*) (Steinert et al. 2012). Mussels fall within the category of filter feeders. Filter feeders are creatures capable of assimilating suspended or floating organic matter via a complex filtration organ(s) that allow them to syphon sustenance from the water column (Jeschke et al., 2007). This research found no significant differences in mussels between the North Sea and Wadden Sea and no invasive species either.

History/ Population trends

Humans have gathered/ farmed mussels for centuries. France is credited as the first country in history that started the culturing of mussels (Aypa, n.d.). Before farming of mussels existed, humans gathered mussels as a food source (Perlman, 1980). There is evidence that even at the hunter gatherer stage in history, mussels were gathered as a source of food and more specifically protein (Perlman, 1980). In more recent years, humans have made significant improvements to the effectiveness of mussel farming. For example, wind farms are being assessed as extra locations for mussel farming (Van den Burg et al., 2017). With longlines and continues looped droppers, substantial amounts of mussels can be farmed as a secondary activity in collaboration with green energy production (Van den Burg et al., 2017).

Miscellaneous

- People used to not eat mussels during months ‘without an R in the name (May, June, July and August)’, because the temperatures were too high to store them for long enough to transport, sell and eat them (Mosselen, n.d.).
- Mussels are not exclusively a saltwater group of species. Several species of freshwater mussels can be found across the world, mainly Northern Amerika and Europe (Strayer, 2008).
- Mussels can filter $10.37L/h^{-1}$ / g DW (in simpler terms: 10.37 Liter seawater per hour, per gram of bodyweight) (Tantanasarit et al., 2013). With an average weight of 60.1g, this means that an average mussel can filter 623,237 Liters of seawater per hour (Alçiçek & Balaban, 2014; Tantanasarit et al., 2013).

Diet

- Zooplankton (Jeschke et al., 2002)
- Phytoplankton (Jeschke et al., 2002)

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